CLAIMS:

        1.   In a multi-service network switch, a method for
5   providing tiered access to system resources, the method
    comprising:
            receiving an incoming connection request;
            assigning an access level to the incoming connection request
    based on a characteristic of an incoming connection request, the
10   access level being associated with an access threshold;
            identifying   the   resource   requested   by   the   incoming
    connection request;
            determining an amount of current usage for the identified
    resource; and
15   allocating   the   identified   resource   to   the   incoming
    connection request if the amount of current usage is less than
    the access threshold associated with the assigned access level.

        2.   The method of claim 1 further comprising:
20   terminating an established connection based on its access
    level; and
            deallocating   the   resource   previously   allocated   to   the
    terminated connection.

25   3.   The method of claim 2, wherein the system resources are
    partitioned among a plurality of virtual routers , and the
    monitoring usage of the system resources comprises monitoring
    usage of the system resources associated with each virtual
    router.
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        4.   The method of claim 1, wherein the characteristic of
    the incoming call is a type of inlink carrying the incoming
    connection request.

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5.   The method of claim 1, wherein the characteristic of the incoming call is a telephone number associated with the incoming connection request.

6.   The method of claim 1, wherein the characteristic of the incoming call is a type of user submitting the connection request.

7.   The method of claim 1 further comprising:
communicating a request for the identified resource, the communicated request including the identified quality of access level;
communicating a response indicating that the identified resource is available; and
communicating a request to allocate the identified resource.

8.   A multi-service network switch providing tiered access to system resources, the switch comprising:
means for receiving an incoming connection request;
means for assigning an access level to the incoming connection request, the access level being associated with an access threshold;
means for identifying the resource requested by the incoming connection request;
means for determining an amount of current usage for the identified resource; and
means for allocating the identified resource to the incoming connection request if the amount of current usage is less than the access threshold associated with the identified access level.

9.   The switch of claim 8 further comprising:
means for terminating an established connection based on its access level; and

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means for deallocating the resource previously allocated to the terminated connection.

10. The switch of claim 9, wherein the system resources are partitioned among a plurality of virtual routers, and the means for monitoring usage of the system resources comprises means for monitoring usage of the system resources associated with each virtual router.

11. The switch of claim 8, wherein the means for assigning the access level comprises means for assigning the access level based on a characteristic of the incoming call.

12. The switch of claim 8, wherein the means for assigning the access level comprises means for assigning the access level based on a type of user submitting the connection request.

13. The switch of claim 8 further comprising:
means for communicating a request for the identified resource, the communicated request including the identified quality of access level;
means for communicating a response indicating that the identified resource is available; and
means for communicating a request to allocate the identified resource.

14. A multi-service network switch including a plurality of interface modules, each interface module comprising:
interface lines for receiving an incoming connection request;
a memory storing a plurality of access levels, each access level being associated with an access threshold; and

a processor coupled to the memory, the processor being operable to execute program instructions including:

5   assigning an access level to the incoming connection request based on a characteristic of the incoming connection request;

identifying the resource requested by the incoming connection request;

10   communicating a request for the identified resource, the communicated request including the assigned quality of access level;

receiving a response indicating that the identified resource is available; and

15   communicating a request to allocate the identified resource.

15.   The interface module of claim 14, wherein the program instructions further comprise:

20   monitoring usage of the local resources for each access level;

receiving the request for the identified resource;

determining an amount of current usage for the identified resource; and

25   allocating the identified resource to the incoming connection request if the amount of current usage is less than the access threshold associated with the assigned access level.

16.   The interface module of claim 14 wherein the program

30   instructions further comprise:

terminating an established connection based on its access level; and

deallocating the resource previously allocated to the terminated connection.

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17.   The interface module of claim 14, wherein the local resources are partitioned among a plurality of virtual routers, and the memory stores the list of local resources for each virtual router.

18.   The interface module of claim 14, wherein the characteristic of the incoming call is a type of inlink carrying the incoming connection request.

19.   The interface module of claim 14, wherein the characteristic of the incoming call is a telephone number associated with the incoming connection request.

20.   The interface module of claim 14, wherein the characteristic of the incoming call is a type of user submitting the connection request.